



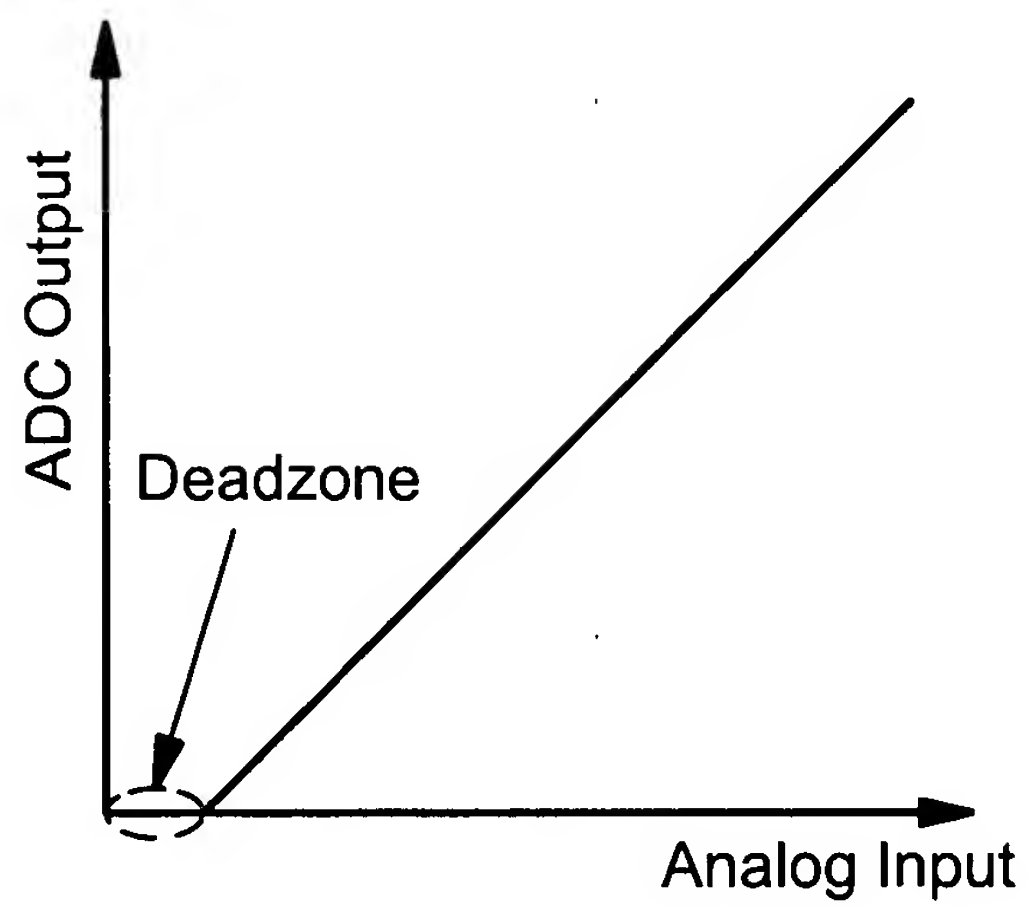
Title: METHOD AND APPARATUS OF SYSTEM OFFSET  
CALIBRATION OVERRANGING ADC

Inventor: Bumha Lee et al.

Docket No.: 08211/0200245-US0/P05600

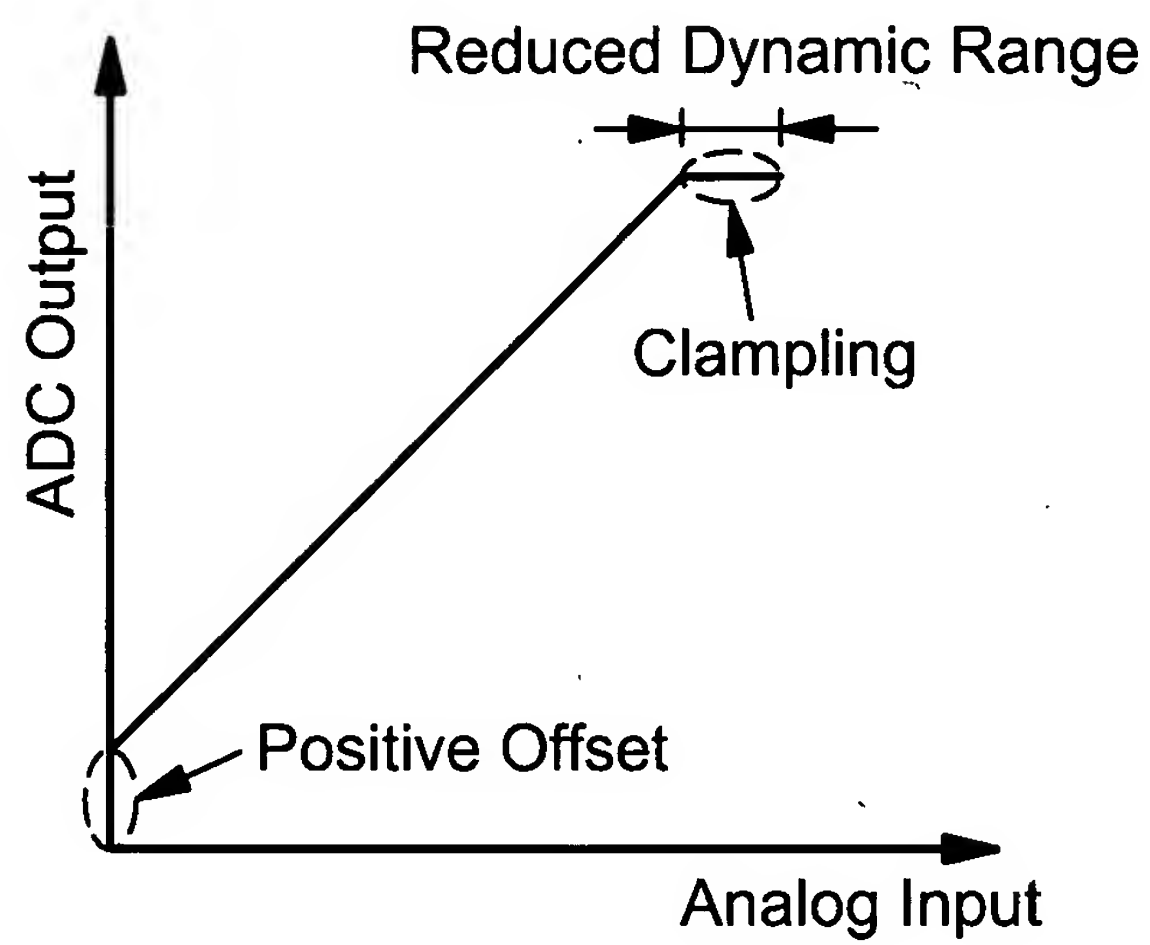
Serial No. 10/623,149

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Transfer Curve with Negative Offset

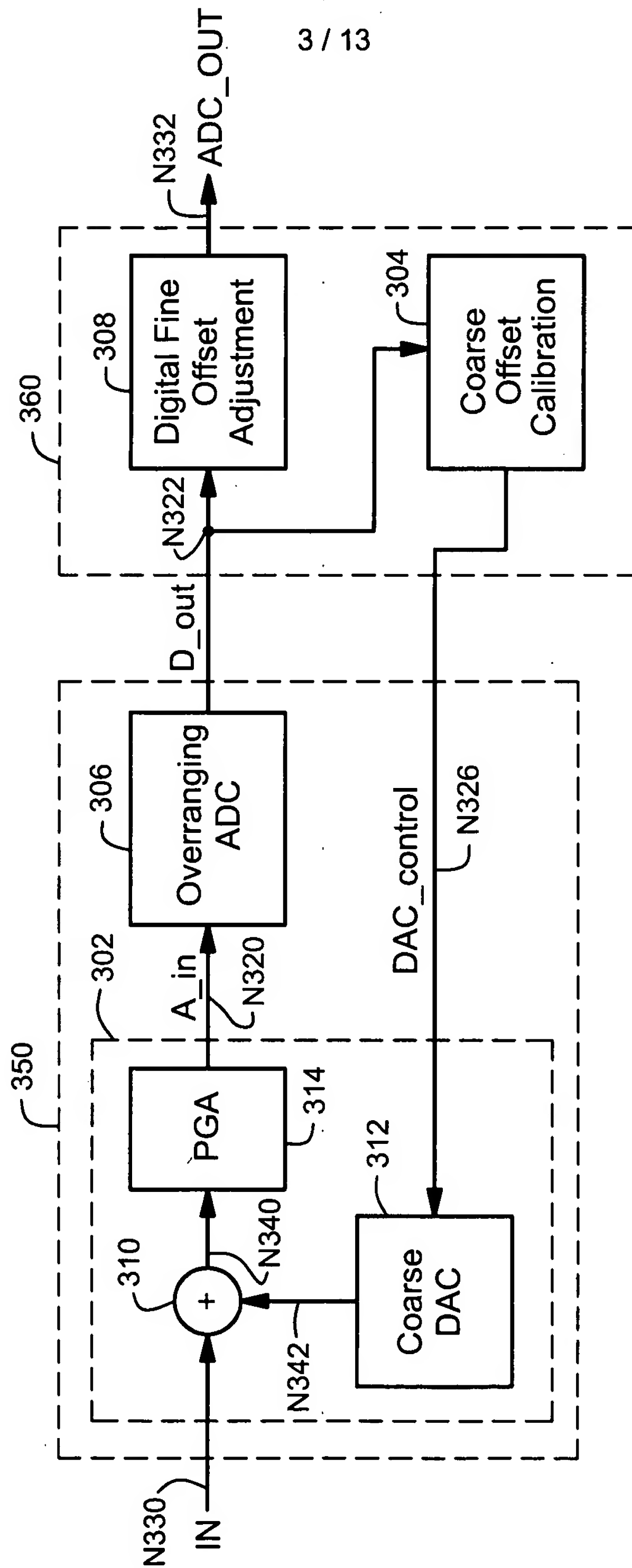
Figure 1



Transfer Curve with Positive Offset

Figure 2

300



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Figure 3

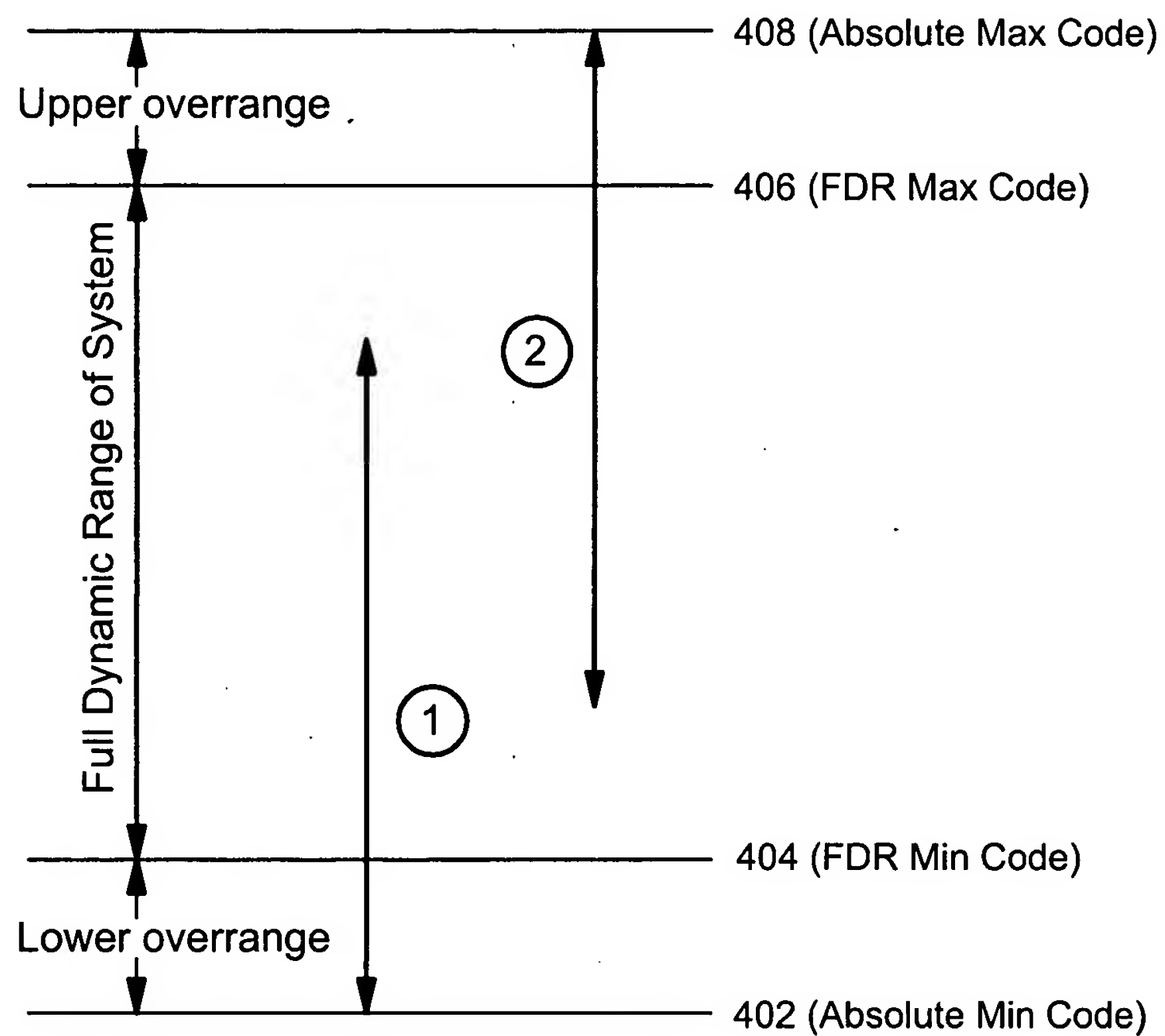


Figure 4

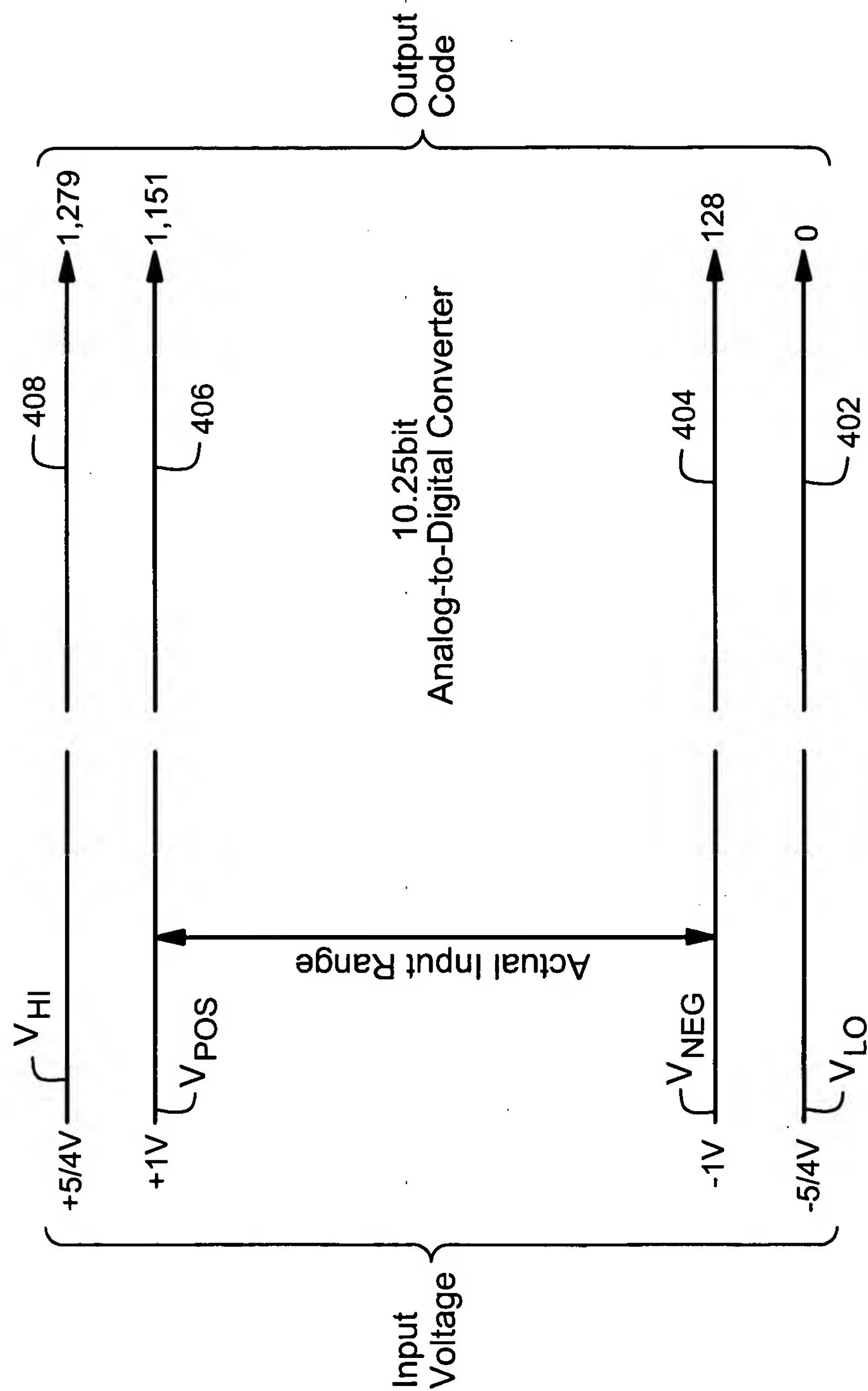


Figure 5

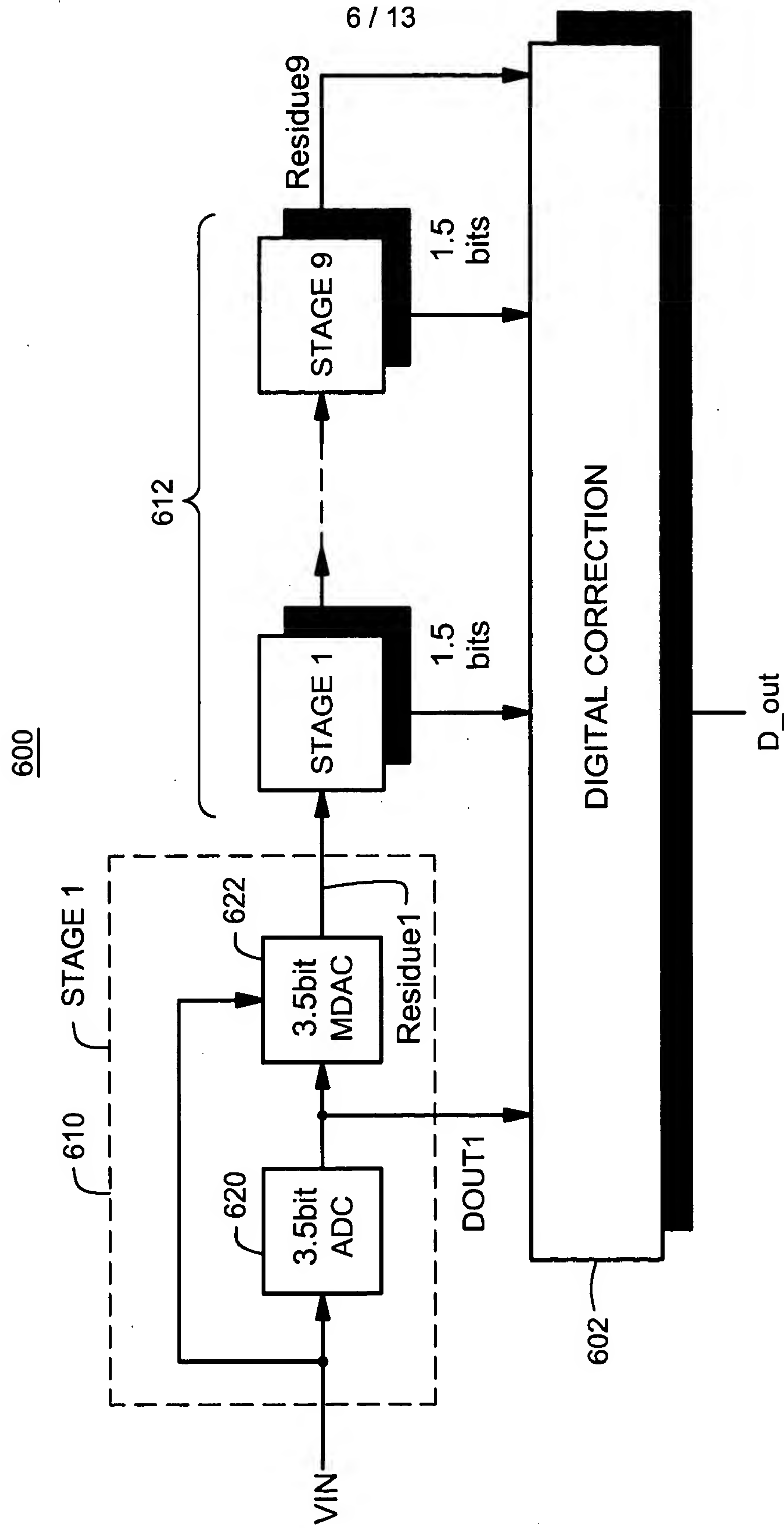


Figure 6

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620

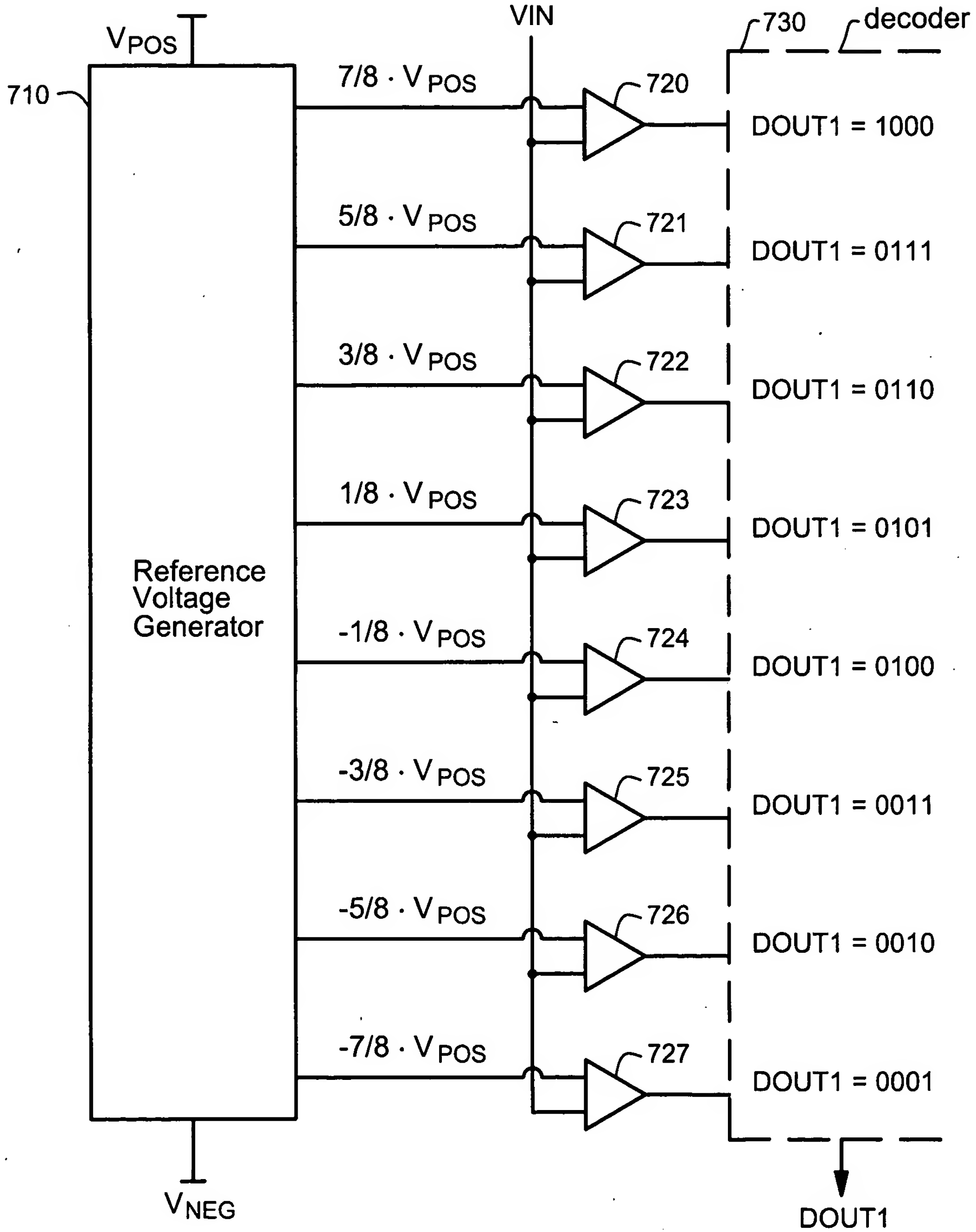


Figure 7

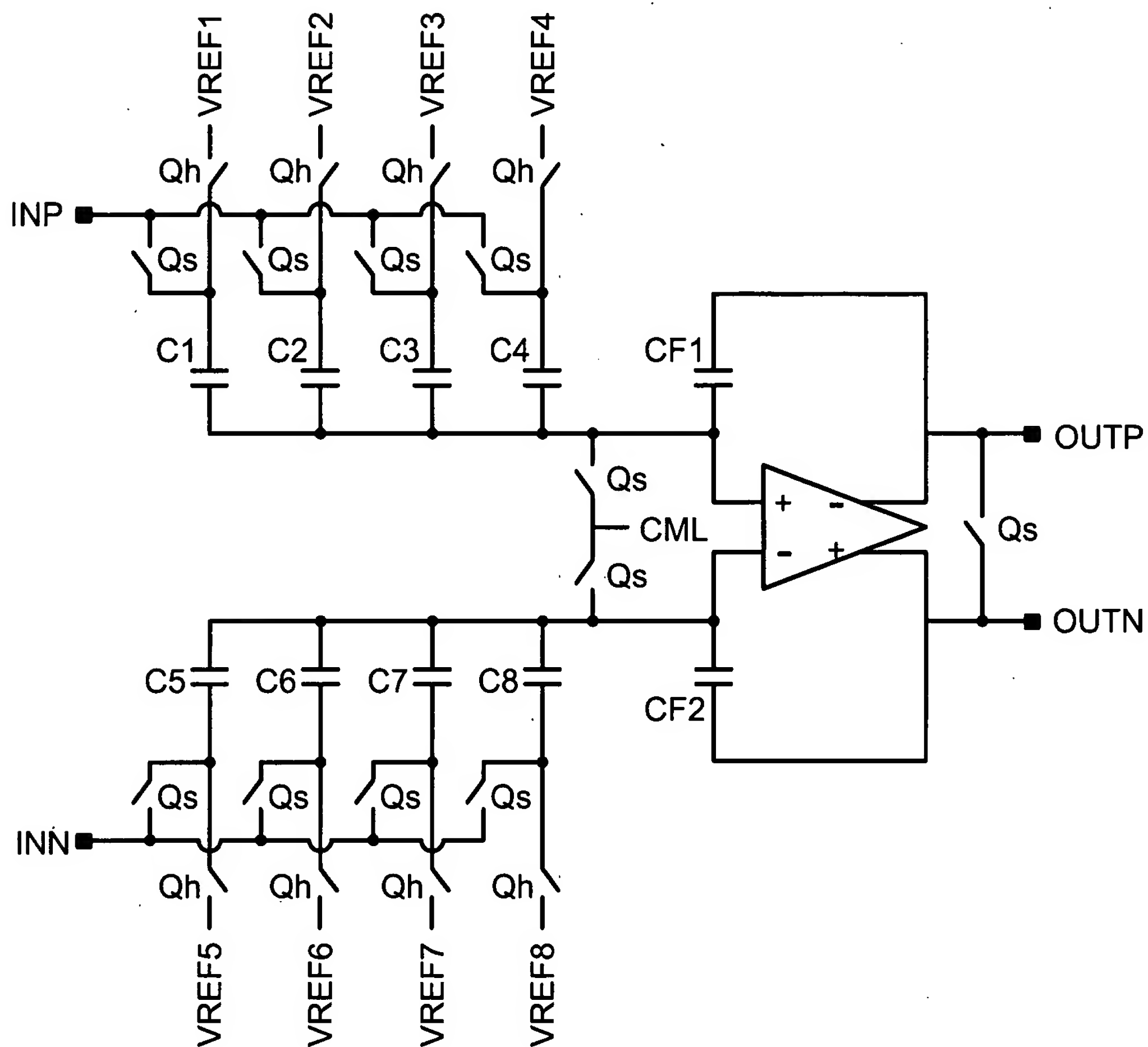


Figure 8A



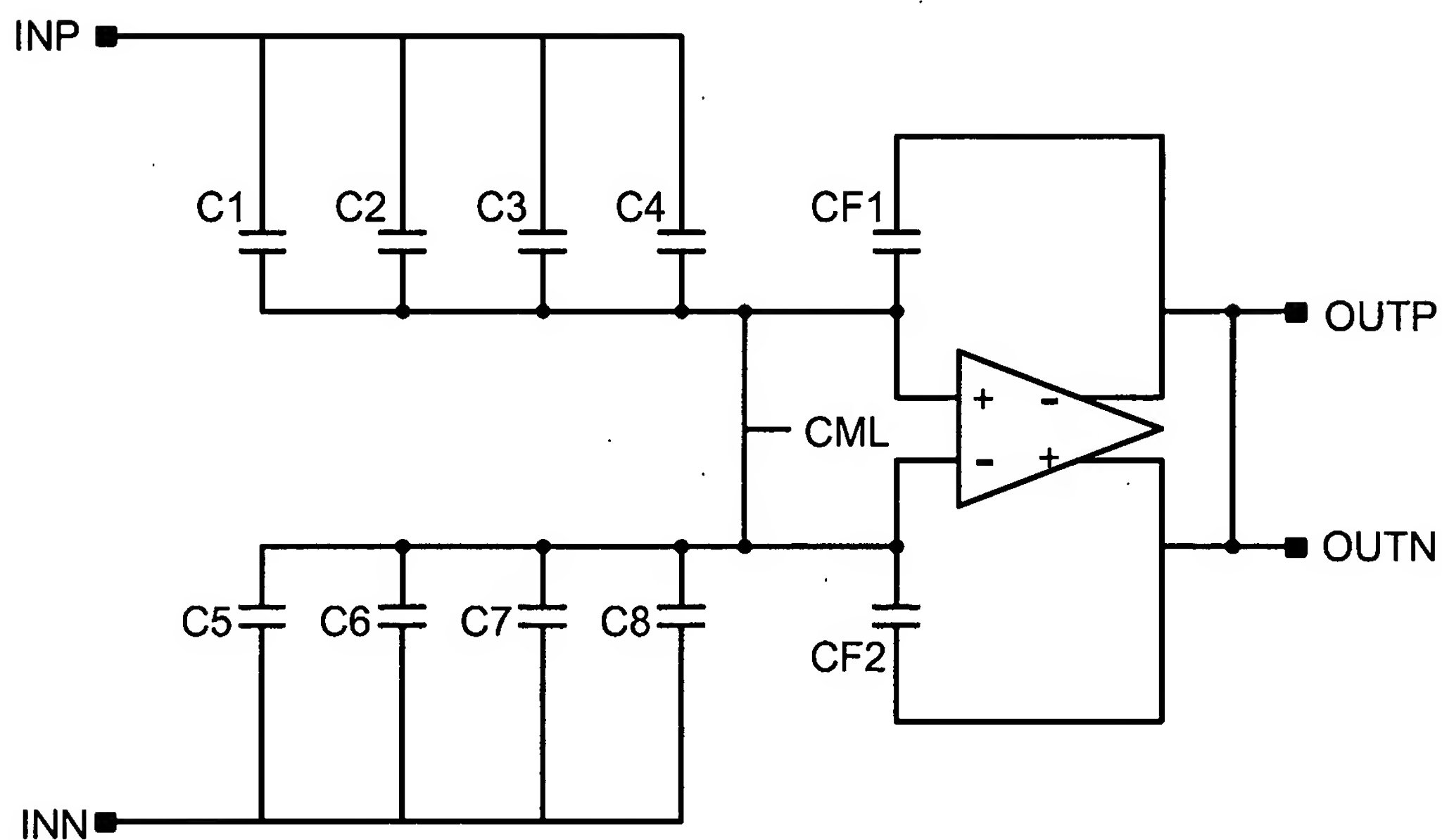


Figure 8B

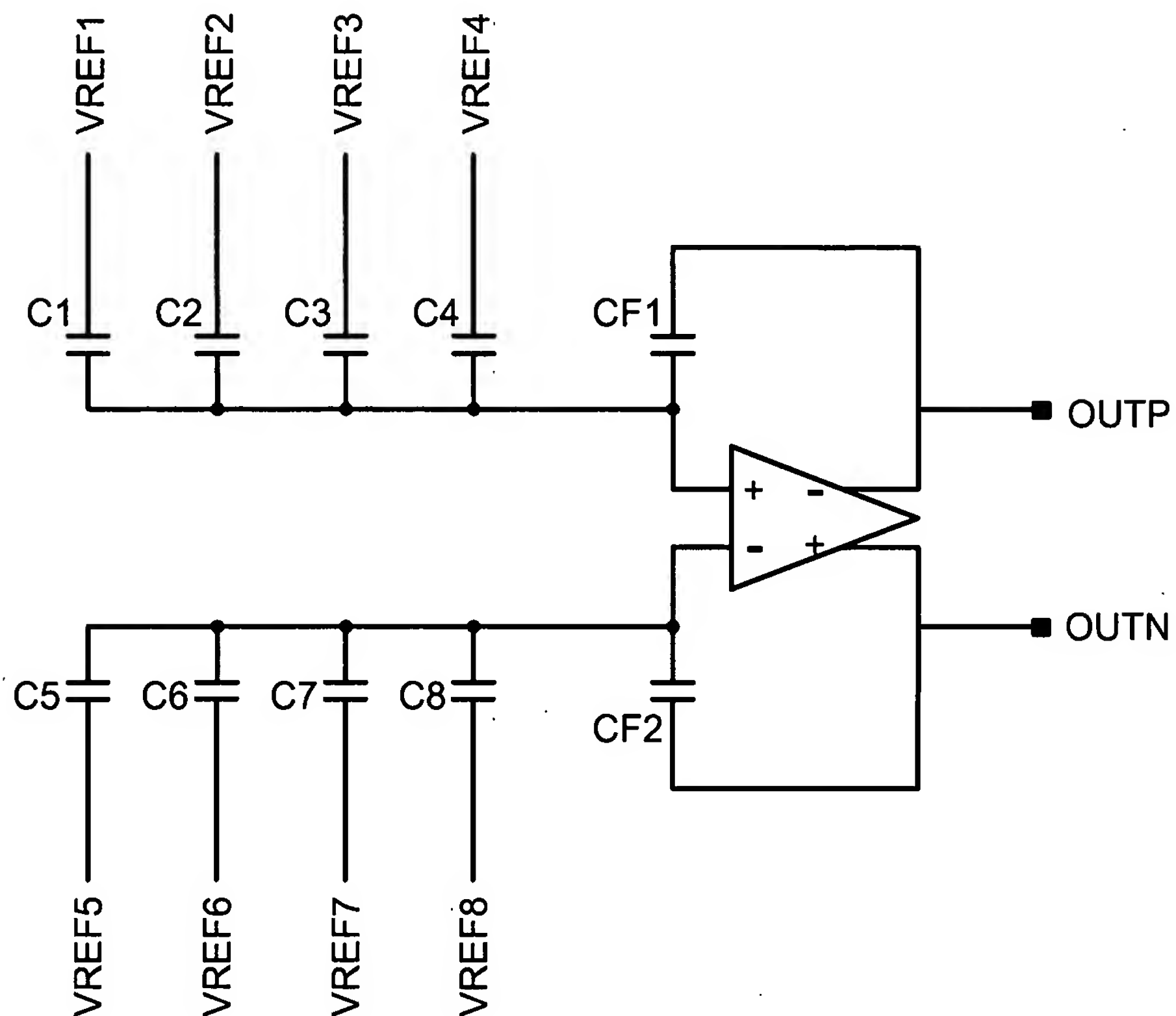


Figure 8C

	VREF1	VREF2	VREF3	VREF4	VREF5	VREF6	VREF7	VREF8	V <sub>OUT</sub>	DOUT1
$7/8 < V_{IN}$	0.5	0.5	0.5	0.5	-0.5	-0.5	-0.5	-0.5	$4V_{IN} - 4$	1000
$5/8 < V_{IN} < 7/8$	0.5	0.5	0.5	0	0	-0.5	-0.5	-0.5	$4V_{IN} - 3$	0111
$3/8 < V_{IN} < 5/8$	0.5	0.5	0	0	0	0	-0.5	-0.5	$4V_{IN} - 2$	0110
$1/8 < V_{IN} < 3/8$	0.5	0	0	0	0	0	0	-0.5	$4V_{IN} - 1$	0101
$-1/8 < V_{IN} < 1/8$	0	0	0	0	0	0	0	0	$4V_{IN}$	0100
$-1/8 < V_{IN} < -3/8$	-0.5	0	0	0	0	0	0	0.5	$4V_{IN} + 1$	0011
$-3/8 < V_{IN} < -5/8$	-0.5	-0.5	0	0	0	0	0.5	0.5	$4V_{IN} + 2$	0010
$-7/8 < V_{IN} < -5/8$	-0.5	-0.5	-0.5	0	0	0.5	0.5	0.5	$4V_{IN} + 3$	0001
$V_{IN} < -7/8$	-0.5	-0.5	-0.5	-0.5	0.5	0.5	0.5	0.5	$4V_{IN} + 4$	0000

Figure 9

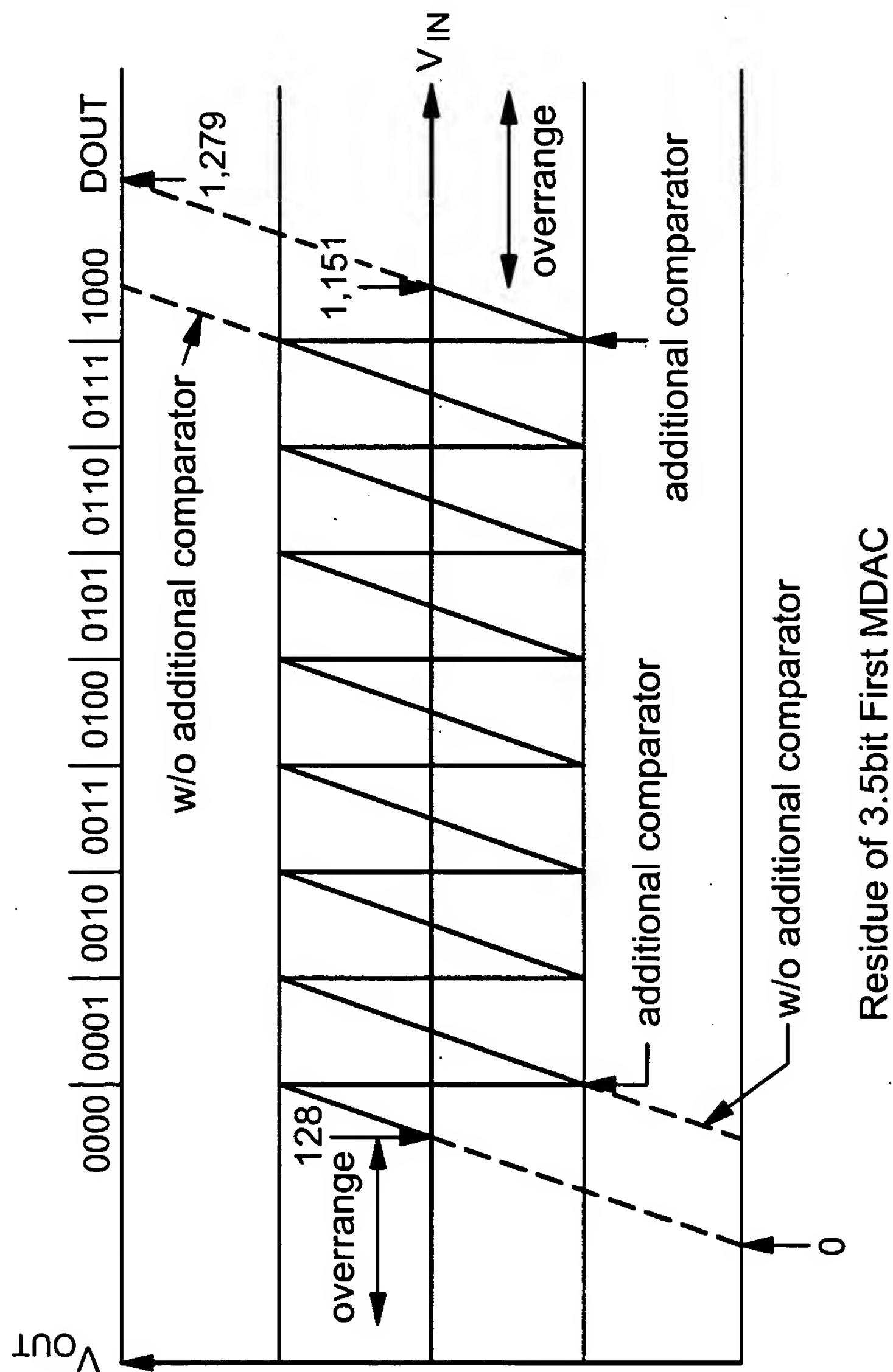


Figure 10

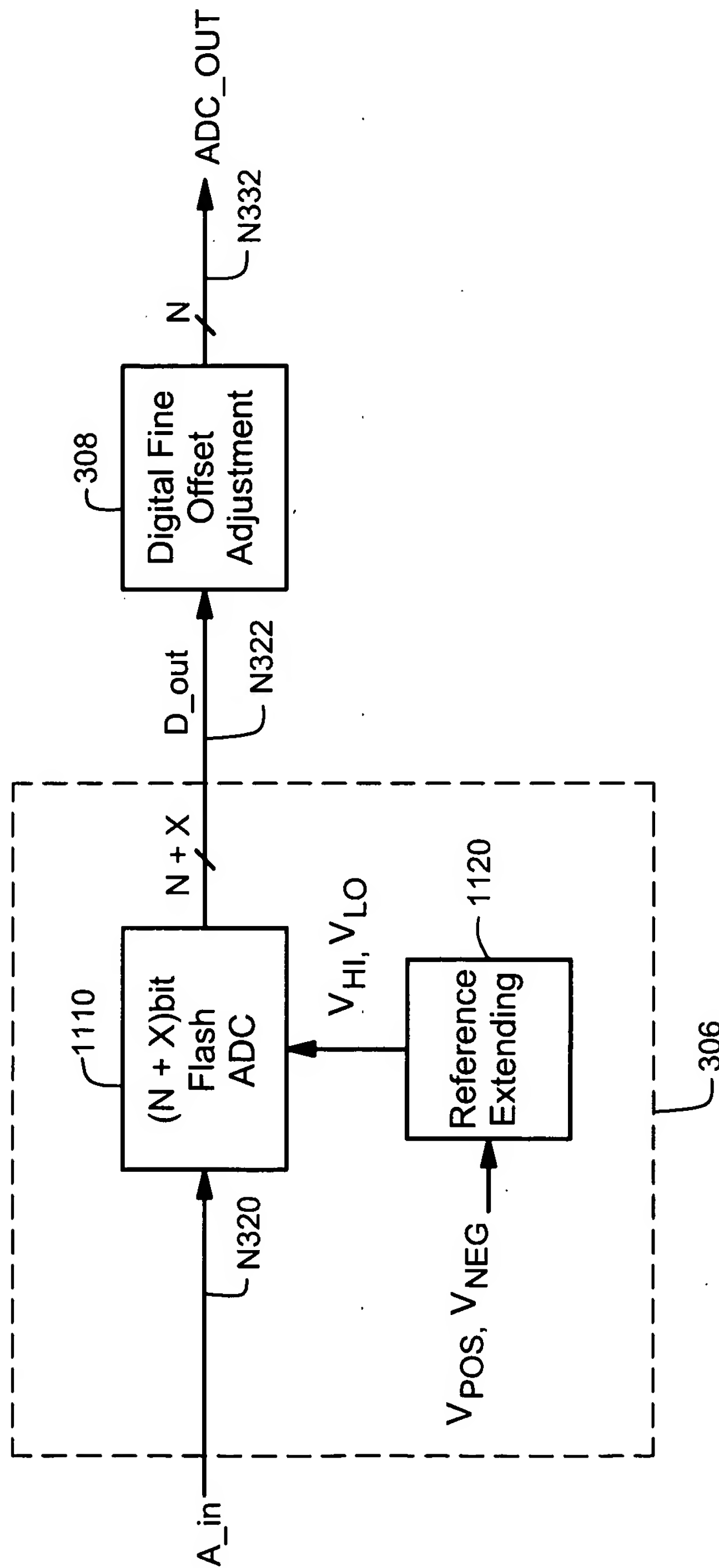


Figure 11